

**TITLE: APPARATUS AND METHOD FOR ELEVATED  
TEMPERATURE WELD TESTING**

**ABSTRACT OF THE DISCLOSURE**

In a method for testing the integrity of welds at elevated temperatures, a pressurized mixture of a gaseous environmentally safe composition is injected in an area between the inner and outer weld of a terminal flange welded to a tubular pipe section or casing. The pressurized composition includes a marker sub-composition which is detected by a detection apparatus which scans the weld. The pressure of the gas composition is also monitored to observe losses in pressure indicative of flaws in the welds. The integrity of the welds is tested at elevated temperature permitting remedial repairs to be made without reheating the tubular pipe or casing.